

2000 Second Avenue
Detroit, MI 48226

DTE Energy



JAMES J. MUSIAL
Manager, Federal Regulatory Affairs
(313) 235-8238

September 21, 2005

By Electronic Mail

Mr. Joe Eto

Ms. Alison Silverstein

Office of Electricity Delivery and Energy Reliability, TD-1

U.S. Department of Energy

1000 Independence Avenue, SW

Washington, DC 20585

Re: *Energy Policy Act of 2005, Section 1234 Economic Dispatch Study*


Dear Mr. Eto and Ms. Silverstein:

Attached please find the responses of The Detroit Edison Company ("Detroit Edison") to the Department of Energy's September 1, 2005 questionnaire directed to David K. Owens, regarding economic generation dispatch. Detroit Edison, a member of the Edison Electric Institute, is an investor-owned public utility operating within the state of Michigan, and a non-transmission-owner member of the Midwest Independent Transmission System Operator, Inc. Additional details regarding Detroit Edison's operations are provided in response to the questions herein.

Should you have any questions or comments regarding the enclosed responses, please don't hesitate to contact either Ron Bauer (734-887-2078) or James Byron (313-235-8130).

Very truly yours,

The Detroit Edison Company

By 
James Musial

enclosure

Energy Policy Act of 2005, Section 1234

Economic Dispatch Study

Questions for Stakeholders

Section 1234 of the Energy Policy Act defines economic dispatch as “the operation of generation facilities to produce energy at the lowest cost to reliably serve customers, recognizing any operational limits of generation and transmission facilities.” With that definition in mind, please answer as many of the following questions as you wish, attaching supporting materials such as studies or testimony that was filed in state or federal regulatory proceedings to support your answer.

Please send your response by e-mail to Economic.Dispatch@hq.doe.gov **no later than September 21, 2005**. Be sure to include the name and phone number of an individual who can answer any questions that may arise about your comments. Thanks in advance for your assistance with this study.

Alison Silverstein alisonsilverstein@mac.com

Joe Eto jheto@lbl.gov

Questions

1) What are the procedures now used in your region for economic dispatch? Who is performing the dispatch (a utility, an ISO or RTO, or other) and over how large an area (geographic scope, MW load, MW generation resources, number of retail customers within the dispatch area)?

Answer: Detroit Edison is a member of the Midwest Independent Transmission System Operator (MISO). MISO operates day-ahead and real-time spot wholesale energy markets centered on the use of locational marginal price (LMP) models to calculate power costs at defined locations taking into account not only energy costs but also the cost of congestion and marginal losses for each location. MISO also provides energy balancing and congestion management services for the entire MISO footprint. The MISO Business Practice Manuals and other information posted on the MISO web site have detailed descriptions on how load and generation unit information is input to the models used to support the MISO energy market and how this information is used in the MISO models for the MISO economic dispatch calculations.

MISO has 23 utility members with 35 control areas in portions of 15 states and Manitoba. Its peak demand is ~112,000 MW and its generation resources are ~130,000 MW.

2) Is the Act's definition of economic dispatch (see above) appropriate? Over what geographic scale or area should economic dispatch be practiced? Besides cost and reliability, are there any other factors or considerations that should be considered in economic dispatch, and why?

*Answer: The definition of economic dispatch would be more appropriately defined in the MISO market as "the operation of generation facilities to produce energy at the lowest **offered price** ..." From the customer load perspective, the MISO LMP models take the "offered price curve" information from each generator to determine the solution that gives the lowest overall cost to serve the customer load in the MISO area, but this LMP price is not necessarily representative of the actual costs for each generator serving the MISO market.*

With regard to the scale of economic dispatch, it is Detroit Edison's belief that dispatch over a broader area allows for broader generator participation and thus benefits consumers through resultant lower prices and enhanced reliability.

MISO performs a Security Constrained Economic Dispatch (SCED) which has as its primary objective the matching of the lowest generation offer prices against load while taking into account transmission constraints and congestion on the grid. In addition, to ensure reliability, MISO's SCED considers (1) the availability of energy limited resources such as run-of-the-river and pumped storage hydro facilities (2) availability of fuel, (3) environmental constraints, (4) governmental rules/regulations, (5) the treatment of intermittent resources (such as wind) that will generate energy under certain conditions. Each of these factors will impact how a particular unit should be dispatched over a given time period.

3) How do economic dispatch procedures differ for different classes of generation, including utility-owned versus non-utility generation? Do actual operational practices differ from the formal procedures required under tariff or federal or state rules, or from the economic dispatch definition above? If there is a difference, please indicate what the difference is, how often this occurs, and its impacts upon non- utility generation and upon retail electricity users. If you have specific analyses or studies that document your position, please provide them.

Answer: MISO treats utility generators in exactly the same manner as non-utility generators in the MISO dispatch modeling. Dispatch procedures in an LMP energy market should not be different for utility versus non-utility generation. However, it may be appropriate that economic dispatch procedures differ for various types of generating resources, taking into account must-run generation, dispatchable generation, non-dispatchable generation and energy limited generation. It is Detroit Edison's understanding that generator ownership is not a factor considered in MISO's SCED.

4) What changes in economic dispatch procedures would lead to more non-utility generator dispatch? If you think that changes are needed to current economic dispatch procedures in your area to better enable economic dispatch participation by non-utility generators, please explain the changes you recommend.

Answer: Detroit Edison is not in favor of creating an economic dispatch model within the MISO market that would favor one generator over another based simply on ownership.

Taking any action to favor non-utility generation in the dispatch process would result in load serving entities subsidizing non-utility generators by paying more than would otherwise be warranted under a fair and equitable dispatch process, and therefore Detroit Edison does not feel such action is necessary or justifiable.

5) If economic dispatch causes greater dispatch and use of non-utility generation, what effects might this have – on the grid, on the mix of energy and capacity available to retail customers, to energy prices and costs, to environmental emissions, or other impacts? How would this affect retail customers in particular states or nationwide? If you have specific analyses to support your position, please provide them to us.

Answer: As indicated in response to Question 4, Detroit Edison believes that regardless of ownership, generators should have equal standing in the dispatch model and further it is Detroit Edison's belief that MISO's current dispatch model accords each generator non-discriminatory access to the market. One concern of Detroit Edison's is that non-utility generators participating in the MISO dispatch may not have the full capability of providing system regulation services or may not be afforded the opportunity to provide those services if they do have such capability. Utility generators must adhere to good utility practice. Utility generators are utilized by the balancing authority to comply with all of the current NERC requirements such as CPS1, CPS2 and DCS and also provide AGC capability to the balancing authority for regulation purposes. Utility generators must comply with the daily ECAR requirement of providing 4% operating reserves. Most RTOs have or are moving towards the development of an ancillary services market. The creation of an ancillary services market would allow non-utility generators to provide reliability-enhancing services and would have a positive impact on grid reliability

Because of the non-discriminatory nature of the MISO dispatch, greater dispatch of non-utility generation occurs as a result of non-utility generation being offered at prices lower than the utility generation. This competition in the generation sector should result in lower LMPs to the benefit of retail customers.

The emissions are dependent on the type of generation not on generation ownership, and emission costs are typically monetized in the development of the prices each supply resource offers into the MISO market.

6) Could there be any implications for grid reliability – positive or negative – from greater use of economic dispatch? If so, how should economic dispatch be modified or enhanced to protect reliability?

Answer: Yes there could be negative implications to grid reliability if emphasis is placed purely on least cost dispatch as opposed to a Security Constrained Dispatch. Grid reliability could be implicated if the dispatch model is constrained in some manner such that it ignores the physical limitations of the system and causes generation to be selected and operated in a manner that does not recognize contingency requirements.